

Set Up Ground Source Heat Pumps In Trane Trace

- Create Systems
 - o Choose Water Source Heat Pump under system type
 - o Under options tab choose Total-energy wheel (OA precondition) as type for Stage 1 Air-to-Air Energy Recovery/Transfer

TRACETM 700 - Y:\TerraVexillum\Mechanical\Final Energy Model.trc

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Create Systems - Options

Alternative 1
System description: ERV-1

Water Source Heat Pump

Evaporative Cooling

Type: None
Direct efficiency: 0 %
Direct coil schedule: Available (100%)
Indirect efficiency: 0 %
Indirect coil schedule: Available (100%)

Economizer

Type: None
"On" point: °F
Max outdoor air: 100 %
Schedule: Available (100%)

Stage 1 Air-to-Air Energy Recovery/Transfer

Type: Total-energy wheel (OA precondition)
Sup-side deck: Ventilation upstream
Exh-side deck: System exhaust
Schedule: Available (100%)

Stage 2 Air-to-Air Energy Recovery/Transfer

Type: None (default)
Sup-side deck: Ventilation upstream
Exh-side deck: Outdoor & room exhaust mix
Schedule: Available (100%)

Effectiveness Options

Selection Options Dedicated OA Temp/Humidity Fans Coils Schematic

- o Under Fans refer to figure for changes:

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Create Systems - Fan Overrides

Alternative 1
System description: ERV-1
Fan cycling schedule: Cycle with occupancy

Water Source Heat Pump

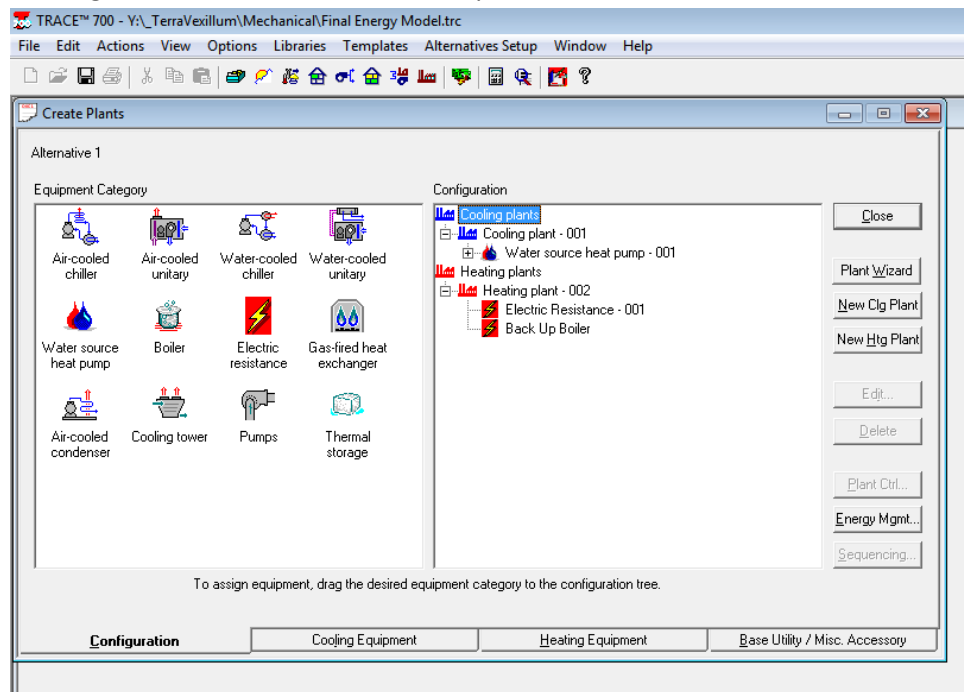
Overrides...

	Type	Static Pressure (in. wg)	Full Load Energy Rate	Full Load Energy Rate Units	Schedule
Primary	Hydronic in heat pump fan	0.75	0.000237	kW/Cfm	Available (100%)
Secondary	None	0	0	kW	Available (100%)
Return	None	0	0	kW	Available (100%)
System exhaust	FC Centrifugal const vol	2.5	0.000321	kW/Cfm-in wg	Available (100%)
Room exhaust	None	0	0	kW	Available (100%)
Optional ventilation	FC Centrifugal const vol	3	0.000321	kW/Cfm-in wg	Available (100%)
Auxiliary	None	0	0	kW	Available (100%)

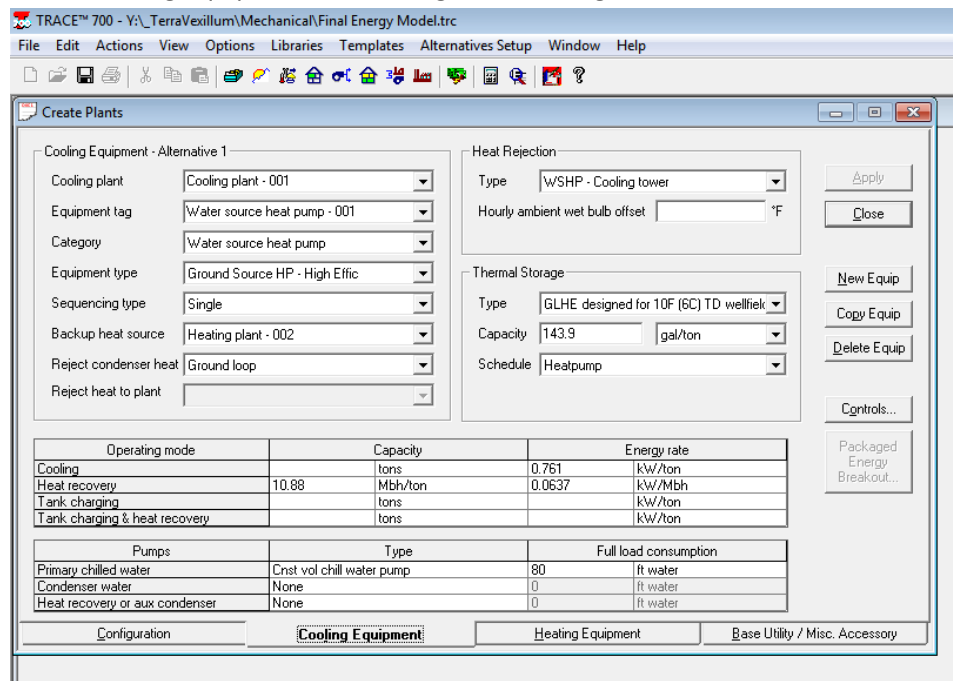
90.1 Primary Fan Power Adjustment: 0 in. wg

Selection Options Dedicated OA Temp/Humidity Fans Coils Schematic

- Create Plants
 - o Add Water source heat pump to Cooling Plants and add two Electric resistance to Heating Plants and rename one Back-Up Boiler



- o Under cooling equipment refer to figure for changes:



- Use defaults for everything else, assign rooms to systems, assign systems to plants and you are ready to calculate and view results.